UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

ADVANCED VIDEO TECHNOLOGIES LLC,	:	
Plaintiff,	:	Case No. 1:11-cv-06604 (CM) (RLE)
vs.	:	
HTC CORPORATION and HTC AMERICA, INC.,	:	
Defendants.	:	

DEFENDANTS HTC CORPORATION AND HTC AMERICA, INC.'S RESPONSE TO COURT'S QUESTIONS POSED ON JANUARY 22, 2013

HTC respectfully submits this brief in response to the questions posed on January 22, 2013 (Dkt. No. 44 in *Advanced Video Technologies LLC v. HTC Corp. and HTC America*, Inc., Case No. 1:11-cv-06604, hereinafter the "HTC Action"): (1) whether "incoming video data" can be either video data received from video source **14** or video information received from receive channel **22**, and (2) whether "outgoing video data" can be either video data output to monitor **16** or video information transmitted to transmit channel **20**.[1] HTC respectfully submits that the correct answers to both questions are "no," as explained below.

I. "INCOMING . . . VIDEO DATA" DOES NOT INCLUDE COMPRESSED VIDEO INFORMATION FROM RECEIVE CHANNEL 22.

The claim language itself makes clear that "incoming video data" is uncompressed data. Each claim recites "a single semiconductor chip providing for a ***video input connection from a***

[1] HTC has received and reviewed Motorola's and RIM's briefs of today's date addressing these two questions posed by the Court, as well as the question of invalidity. HTC agrees with and joins Motorola's and RIM's briefs, and files the present brief herein to provide additional support for the points raised therein.

camera." Independent claims 5, 13 and 26 further recite that "wherein ***the incoming video data*** is video input data ***from the video input connection*** . . . ." Because the "video input connection" receives video data "from a camera," the "incoming video data" can refer only to uncompressed video data – not the compressed video information that comes in from receive channel **22**.

AVT nonetheless argues that "incoming video data" should be construed to cover compressed data because independent claim 23, unlike claims 5, 13 and 26, does not expressly recite that the incoming video data "is video input data from the video input connection . . . ." One flaw with this argument is that it would require that the Court construe incoming video data differently in claim 23 from claims 5, 13 and 26, which is impermissible under Federal Circuit law. *See Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1579 (Fed. Cir. 1995) (claim language must be interpreted consistently across all claims in which it appears within a patent). And as explained below, the absence of the clarifying language from claim 23 is irrelevant because the specification makes abundantly clear that incoming video data in all claims can only be the uncompressed video data from video source **14**.

A. "Incoming video data" corresponds to "incoming pixels," which are uncompressed, raw video data.

Figure 1 of the '788 patent (reproduced at right) shows the basic architecture of the alleged invention. The specification states that "Video Source" (**14**) shown in Figure 1 is uncompressed data from a camera that is to be compressed by "Video Codec" (**12**). ('788, 3:45-48 ("Video information from the camera **14** or other video input source is compressed by the video codec **12** and transmitted out in compressed form on a transmit channel **20**.").)

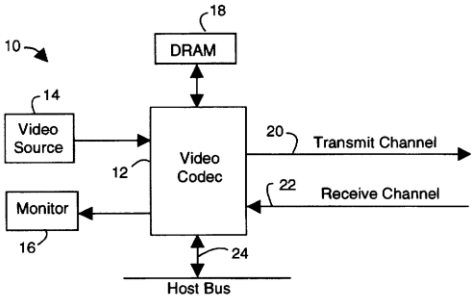

Fig. 1 of '788 Patent

A more detailed view of "Video Codec" (**12**) is shown in an annotated version of Figure

2, reproduced at right, which shows the codec (**12**) receiving input from the same "Video Source" (circled), which is connected to VP **30**, which is a video input/output buffer. The specification explains that "[t]he video input/output buffer (VP) **30** is such that the **incoming pixels** are **buffered and stored in the external DRAM 18** for raster-scan-to-block conversion." ('788, 4:63-65 (emphasis added).)

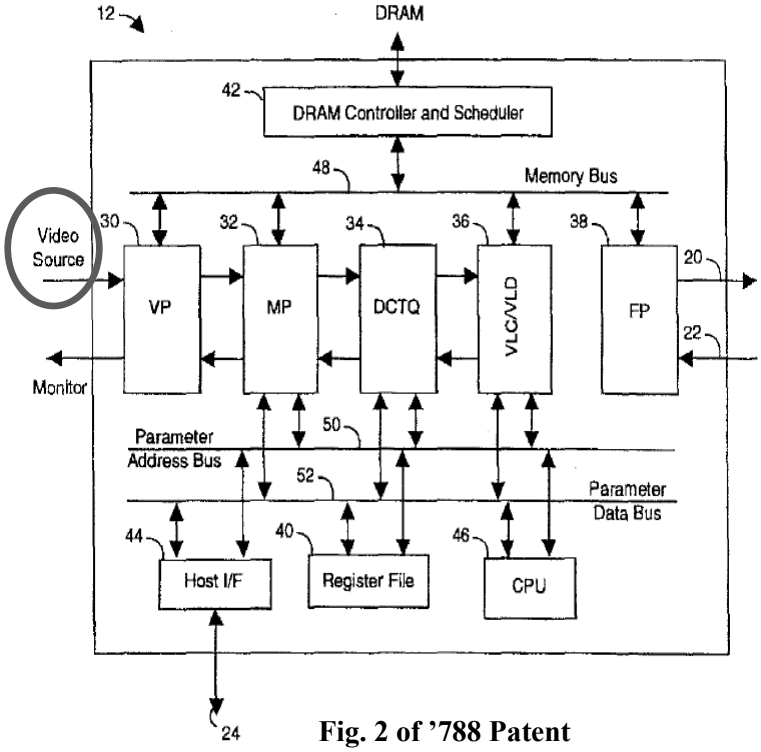

Fig. 2 of '788 Patent

The phrase "incoming pixels" in the specification directly correspond to the "incoming video data" recited in the claim. The term "**pixel**" refers to a physical dot that forms an image in its raw form – the ***uncompressed*** form of the picture data. *See* Microsoft Computer Dictionary 367 (3d ed. 1997) ("**pixel** Short for picture (**pix**) **el**ement. . . . One spot in a rectilinear grid of thousands of such spots that are individually 'painted' to form an image produced on the screen by a computer or on paper by a printer.") (attached hereto as Exhibit A).

B. Video information received from receive channel 22 cannot be "incoming video data" because it is first processed by framing processor 38 before moving into the DRAM.

This Court has correctly indicated that incoming video data must be "unprocessed" when moving into the DRAM for "interim storage." The specification makes clear that the only incoming video data that is "unprocessed" when moving into the DRAM is the uncompressed video data from video source **14** that goes into the DRAM. As described above, the specification states that this incoming video data passes through the video input/output buffer (VP) **30**, which

simply routes the data to the DRAM without performing any processing on it. (*See* '788, 4:63-65.) This data is therefore "unprocessed" at the point it enters the DRAM for interim storage.

The video information received from the receive channel **22**, on the other hand, **does** undergo processing by the chip before moving into the DRAM. In particular, as shown in Figure 2 reproduced above, the video information from receive channel **22** must pass through "framing processor (FP) **38**" before it can reach the DRAM. ('788, 5:18-21; Fig. 2.) This "framing processor (FP) **38**," as its name indicates, processes the video information received from the receive channel **22** before passing it to the DRAM. This processing occurs through the decoding of error correction codes (BCH codes) embedded in the received compressed video information stream. (*See* '788, 9:7-11 ("A pair of serializers/**deserializers 116** and **117** provide **format changes** for the BCH coder **114** and a **BCH decoder 118** that are connected to the transmit channel **20** and **receive channel 22**, respectively.") (emphasis added); 5:18-23 ("In the framing processor (FP) **38**, a BCH (511, 493) forward error correction code is generated for inclusion in the transmitted bit stream. The encoder includes an error correction framing pattern. In the **decoder**, relock timing for the error corrector framing is **re-established** when lock is lost.")

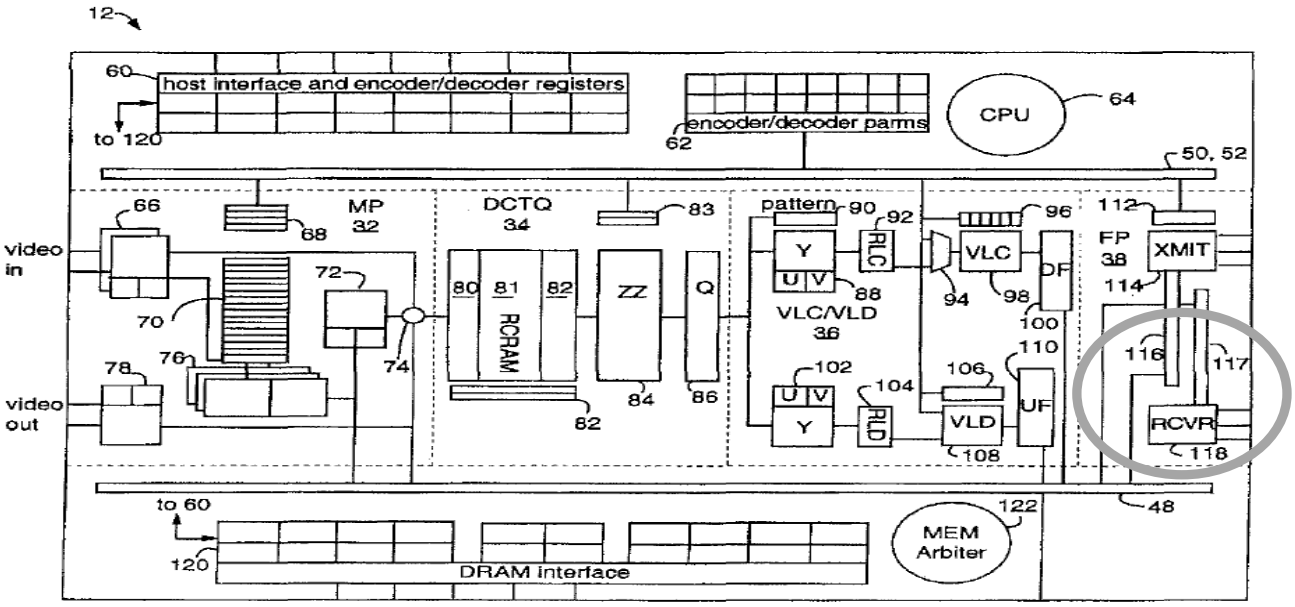

Fig. 3 of '788 Patent

(emphasis added).) In other words, the video information coming from receive channel **22** is stored in interim storage only after that information has been processed by the error correction and decoding logic of framing processor (FP) **38** (as shown above in the annotated Fig. 3, the deserializers 117 that provide "format change" connected to the receive channel 22). The video information obtained from receive channel 22, accordingly, is not "unprocessed" when moving into the DRAM for "interim storage."

II. "OUTGOING VIDEO DATA" DOES NOT INCLUDE COMPRESSED VIDEO INFORMATION GOING TO TRANSMIT CHANNEL 20.

For reasons very similar to those expressed above, "outgoing video data" is only the decompressed video data moving from the DRAM to the monitor **16** – not compressed video information transmitted to transmit channel **20**. During the reexamination, AVT repeatedly argued that the "outgoing video data" in the '788 does not undergo any processing when moving from the DRAM to the output of the video codec during transit. For example, in its July 27, 2007 Amendment and Response to Office Action (Chen Decl., Ex. 3 (Dkt. No. 33-3 in the HTC Action)), AVT argued:

> Therefore, **Bose does not indicate that the** incoming / **outgoing video data passes** from / **to the video ports through an interface** to / **from the DRAM for interim storage without being processed by other components of the chip into intermediate processed video data in transit**. . . .The figures support the position that **Bose does not indicate that the** input and **output video data pass through an interface** from / **to the video ports** to / **from the DRAM for interim storage without being processed by other components of the chip into intermediate processed video data.**

Id. at 20 (emphasis added). As shown below, the only outgoing video data that does not undergo any processing when moving from the DRAM to the output of the codec during transit is the decompressed data sent to the monitor.

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As shown in the annotated Figure 2 (at right), the output pathway to the monitor (shown in the solid line at left) goes through **VP (30)**, which is simply a "video input/output buffer" that performs no processing. ('788 patent, 4:63-65.) In contrast, the pathway for the transmit channel (**20**), represented by the dotted pathway on the right, requires that the video information from the DRAM pass through Framing Processor (FP) **38** during transit. That framing processor processes video data from the DRAM before it is sent through the transmit channel (**20**). The processing performed by the framing processor **38** modifies the compressed data from the DRAM by incorporating newly-generated error correction (BCH) information into the video data transmitted through transmit channel (20). ('788 patent, 5:18-21 ("In the framing processor (FP) 38, a BCH (511, 493) forward error correction code is generated for inclusion in the transmitted bit stream. The encoder includes an error correction framing pattern.").)

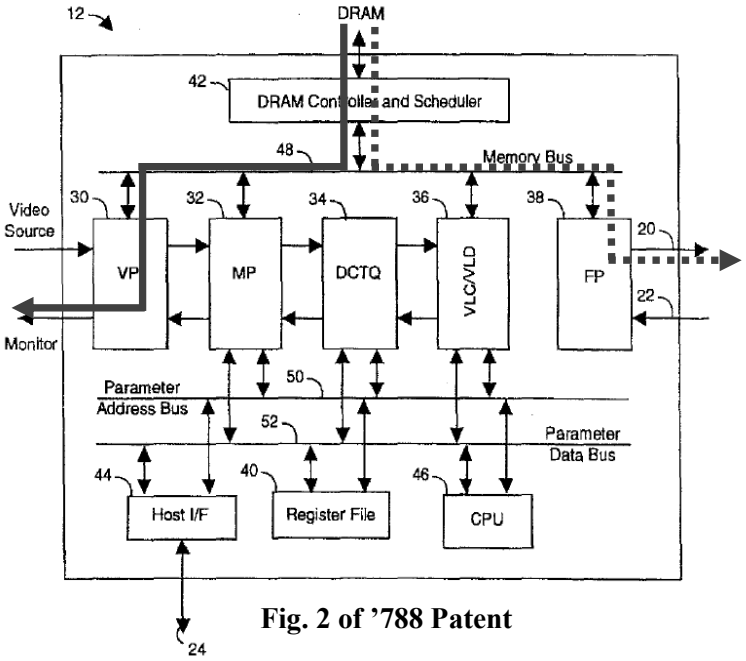

Fig. 2 of '788 Patent

This processing by framing processor (FP) **38** fatally undermines AVT's contention that the "outgoing video data" can be the compressed video information that goes through the transmit channel (**20**). AVT repeatedly told the PTO that "outgoing video data" is video data without being processed by other components of the chip during transit from the DRAM to the output of the video codec (Dkt. No. 32 in the HTC Action at 9-10), which cannot be reconciled with the processing done by the framing processor (FP) **38**. AVT therefore has no basis to argue that the transmit channel (**20**) can provide a pathway for the "outgoing video data."

Dated: January 25, 2013

Respectfully submitted,

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